## (19) World Intellectual Property Organization International Bureau



## 

#### (43) International Publication Date 16 October 2003 (16.10.2003)

#### **PCT**

# (10) International Publication Number WO 03/085573 A1

(51) International Patent Classification<sup>7</sup>: G06F 17/60

(21) International Application Number: PCT/KR03/00678

(22) International Filing Date: 4 April 2003 (04.04.2003)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data: 10-2002-0018772 4 April 2002 (04.04.2002) KR

(71) Applicant and

(72) Inventor: KIM, Houng-chan [KR/KR]; RM 202, 9-46 Yangjae 1-dong, Secho-gu, Seoul 137-131 (KR).

(74) Agent: JUNG, Sesung; RM 208, HubaHuba-bldg., 648-bunji, Yeoksam-dong, Gangnam-gu, Scoul 135-911 (KR).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, VC, VN, YU, ZA, ZM, ZW.

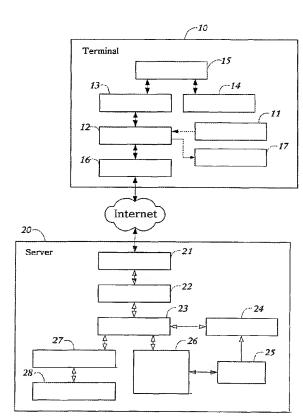
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD OF APPLYING CREDIT CARD/GIFT CERTIFICATE ENABLING DESIGN-EDITING ON INTERNET



(57) Abstract: Disclosed is a method of applying for credit card/gift certificate on network. The method includes steps of: if user connects to server through Internet and logs in, transferring homepage data to terminal by operating system; if information request data for purchasing gift certificate are inputted to server from terminal, executing CGI program and transferring kind and price information of gift certificate to terminal; if data of gift certificate choice and design editing request are inputted to server from terminal, transferring stored background image and character to terminal from corresponding user space allocated to database; storing edited image made of background, character image and text on database under control of CGI program in response of request for editing background image and character from terminal, transferring edited image to terminal, and transferring homepage for payment to terminal; and transferring window for corresponding payment to terminal and certificate decided to purchase from terminal.

WO 03/085573 A1

# METHOD OF APPLYING CREDIT CARD/GIFT CERTIFICATE ENABLING DESIGN-EDITING ON INTERNET

#### TECHNICAL FIELD

5

10

20

25

30

The present invention relates to a method of applying for a credit card/gift certificate on network, and more particularly, to a method of applying for credit card/gift certificate enabling design-editing on Internet in which a user can edit and design a credit card or a gift certificate when connecting a server through Internet at a personal terminal and applying for a credit card or a certificate and a plurality of payers can pay a gift certificate when paying the gift certificate.

#### 15 BACKGROUND ART

The conventional credit cards and gift certificates are designed by credit card providers or gift certificate providers and are provided to users.

The conventional credit card providers issue various kinds of credit cards in response of issuance request of credit card by on-line and off-line. The conventional gift certificate providers delivers various kinds of gift certificates of a few kinds of nominal values in response of request of purchase of gift certificates by on-line and off-line.

However, the conventional electronic commercial transaction type, that is, Internet gift certificate purchase payment solution and credit card application do not provide customers with active interface for various convenience for marketing management ability. In addition, overload of

overflowing related information burdens the user with heavy confusion, so that customer-oriented convenience is not secured sufficiently. As a result, the conventional electronic commercial transaction type has a limitation in practicing a plan related closely to the customer's preference.

#### DISCLOSURE OF THE INVENTION

5

10

15

20

25

Accordingly, the present invention is directed to a method of applying for credit card/gift certificate enabling design-editing on Internet that substantially obviates one or more of the problems due to limitations and disadvantages of the related art.

An object of the present invention is to provide a method of applying for credit card/gift certificate enabling designediting on Internet in which in a plurality of goods purchase payment authorizers create a community at a chatting room and a solution to create business model process to help purchase payment for more reasonable culture contents by using information of each other is provided in user-oriented interface design editing and purchase payment succeeding it for "Do It Yourself" (DIY) gift certificate purchase payment solution and DIY credit card application purchase payment.

Additional features and advantages of the invention will be set forth in the description which follows, and in part will be apparent from the description, or may be learned by practice of the invention. The objectives and other advantages of the invention will be realized and attained by the structure particularly pointed out in the written description and claims thereof as well as the appended drawings.

To achieve these and other advantages and in accordance

5

10

15

20

25

30

with the purpose of the present invention, as embodied and broadly described, there is provided a method of applying for various gift certificates enabling design-editing on Internet after connecting to a server by using a terminal connected to Internet. The method includes the steps of: (a) if a user connects to the server through the Internet at the terminal and logs in, transferring homepage data to the terminal at a web server by using an operating system; (b) if information request data for purchasing a gift certificate are inputted to the server from the terminal on which the homepage displayed, executing a common gateway interface (CGI) program by the web server in the server and transferring kind and price information of the gift certificate to the terminal; (c) if data of a gift certificate choice and a gift certificate design editing request are inputted to the server from the terminal that received information of a gift certificate, transferring a stored background image and a character to the terminal from a corresponding user space allocated to database by using the operating system; (d) storing an edited image made of a background, a character image and a text on the database under the control of the CGI program in response of request for editing a background image and a character from terminal, transferring the edited image to the terminal through the web server, and transferring a homepage for payment to the terminal; and (e) transferring a window for a corresponding payment to the terminal in response of payment request for the image and a certificate decided to purchase from the terminal.

To further achieve these and other advantages and in accordance with the purpose of the present invention, there is

provided a method of applying for various credit enabling design-editing on Internet after connecting to a server by using a terminal connected to Internet. The method includes the steps of: (a) if a user connects to the server through the Internet at the terminal and logs in, transferring homepage data to the terminal at a web server by using an operating system; (b) if request data for applying for a credit card and editing a credit card design are inputted to the server from the terminal, executing a CGI program unit by the web server in the server and transferring an information input window and a credit card design edit window to the terminal; (c) if credit card design edit request data inputted the terminal are inputted, transferring background image and a character to the terminal from a corresponding user space allocated to database by using the operating system in a server; and (d) storing an edited image made of a background and a character image on the database under the control of the CGI program unit in response of request for editing a background image and a character from terminal, transferring the edited image to the terminal through the web server, and transferring a homepage for payment to the terminal.

It is to be understood that both the foregoing general description and the following detailed description are exemplary and explanatory and are intended to provide further explanation of the invention as claimed.

#### BEST MODE FOR CARRYING OUT THE INVENTION

10

15

20

25

The preferred embodiments of the present invention will 30 be described referring to accompanying FIGS. 1 to 4.

FIG. 1 is schematic view illustrating electronic commercial transaction device on Internet according to the present invention. In general, the electronic commercial transaction device includes a terminal 10 for searching world wide web (WWW) on general Internet and a server 20 for transferring searched data.

5

10

15

20

25

30

The terminal 10 includes an input unit 11 and an interface unit 12 for outputting the inputted contents to a corresponding unit. The input unit 11 includes a keyboard and a mouse for inputting various data.

addition, the terminal 10 further includes operating system 13 connected to the output of interface unit 12 and an Internet protocol unit 14. The operating system operates all the units so that the corresponding unit processes the contents inputted through the interface unit 12. The Internet protocol unit 14 indicates all the protocol units used in Internet and is needed to use services through Internet. The terminal 10 is operated by the operating system 13 and includes a browser 15 that can connect to Internet through the Internet protocol unit 14. The browser 15 is a tool used to search a hypermedia text. The hypermedia text is a text described in Hypertext markup language (HTML). a hypermedia text description language that a browser which is a searcher is needed to recognize and interpret. The browser 15 searches all the texts on Internet and displays contents of the text on a screen so that a user can read it. A connecting unit 16 of the terminal 10 connected between the interface unit 12 and Internet includes a modem and network adapters for connecting to Internet. An output unit 17 includes various devices such as a monitor to display the

contents which the browser searched for.

5

10

15

20

25

Meanwhile, the server 20 includes a connecting unit 21 connected to Internet and an interface unit 22 for outputting the inputted contents to the corresponding units. In addition, this unit includes an Internet protocol unit 24 and an operating system 23 for operating each unit so that the corresponding unit processes the contents inputted through the interface unit 22. The server 20 is operated by the operating system 23 and includes a web server 25 for operating on the Internet protocol unit 24. The web server 25 transfers the data requested by a browser 15 according to Hypertext transfer protocol (HTTP). HTTP defines the communication protocol between a browser and a server.

In a server 20, a CGI program unit 26 is connected between a web server 25 and a database managing unit 27. The CGI program unit 26 is operated by the operating system 23 and communicates data with the web server 25. The CGI program unit 26 helps the user search for customized products purchasing plan and purchase it based on the CGI function. CGI provides moving pictures and graphics and also helps the user's server communicate with each other. In the server 20, a database managing unit 27 is connected between a CGI program unit 26 and a database unit 28. The database managing unit 27 is operated by the operating system 23 and outputs data needed for the CGI program unit 26 to operate.

The server 20 includes a database 28 connected to the database managing unit 27. The database 28 outputs the data needed for the database managing unit 27 or stores the data inputted through the database managing unit 27.

6

The process of applying for the credit card and the gift

certificate whose designs can be edited on Internet according to the preferred embodiment of the present invention as described above will be taught referring to FIG. 2.

FIG. 2 is a flow charts illustrating the operating flows A and C of the browser 15, the operating flows A and C of the browser 15, the operating flow B of the web server 25 and the operating flows B-1 and B-2 of the database managing unit 27 of the CGI program 26 related most closely to the present invention among the units shown in FIG. 1.

5

15

25

30

10 Before describing the present invention, the user receives an ID that is an authentication to use Internet.

The server 20 connects to Internet through the connecting unit 21 and sets domain name that is an Internet homepage name by using an Internet program. When the user inputs an Internet address to the web server 25 (S311), the web server 25 requests the user to input his or her name and password (S312). If the user inputs his or her name and password (S321 and S332), the web server 25 determines whether the user is registered (S322).

If the user is not registered, the web server 25 transfers a registration screen (S323) so that the user inputs his or her name and password to register (S312).

If the user is registered, the web server 25 transfers an electronic commercial transaction homepage and executes (S324) so that the user can search for the solution of DIY credit card application and DIY gift certificate purchase payment.

The electronic commercial transaction execution homepage is a first page of the program for executing an electronic commercial transaction purchase plan on Internet. The user looks the electronic commercial transaction DIY credit card

application and DIY gift certificate purchase payment homepage, searches and selects sub-page (S323).

The CGI program includes the CGI function in which the user executes while communicating data with the server to which the user connects. Further the CGI program makes DIY gift certificate for the person whom the user will give the gift by using DIY credit card application and DIY gift certificate design interface (S314).

5

10

15

20

25

30

The web server 25 operates the CGI program unit 26 and transfers specification of products according to card companies and gift certificate issue companies and mini company homepage (S334). The gift certificate categories and the gift certificate price can be determined.

In DIY gift certificate design interface, as shown in FIG. 3, it is a program by which virtual user incarnated character, theme character which a web service provider made and a photo-image shifted from the personal box stored in storage space of the database 28 are dragged to complete the image by using background image and various design element (S342). The CGI program outputs the result image of an inputted DIY gift certificate and requests the database for management (S326).

The CGI program processes the data which the user searches for a DIY gift certificate purchase plan and selects, and requests the database managing unit 27 to analyze data (S341). The database managing unit 27 searches and analyzes the requested data referring to the database 28 and outputs them to the CGI program 26.

In addition, for a gift certificate purchase payment, as shown in FIG. 4, if a user enters a 1:many or many:1 DIY gift certificate purchase payment dialog room, the CGI program 26

sends a created chatting page to the position on which the user's information is displayed, that is, the corresponding link by using a buffer, referring to the inputted data (S315).

The CGI program unit 26 transfers marketing homepage referring to the inputted data so as to execute user purchase plan (S327). If the user completes to pay for a purchased product through the browser 15, the browser 15 outputs electronic commercial transaction result data to a web server 25 (S328). The user ends the electronic commercial transaction referring to the contents of the payment accounting result page searched by the browser 15 displayed on the output unit 17 (S335).

5

10

15

20

25

30

Referring to FIG. 3, a design platform designed to satisfy the customer by the DIY gift certificate design interface is used to meet the balance between a language and an emotion and enhance skin quality and depth in a user access method. A virtual character that communicates by the configuration of image story that has theme so called "sharing" and apparent joy can enhance friendship of the person who receives the DIY gift certificate.

FIG. 4 illustrates DIY gift certificate purchase payment interface. A functional input part of credit card payment and a purchase payment agreement dialog input part extracted from the common chatting room are made to develop emotional harmony.

In the program skill shown in FIGS. 3 and 4, a dynamic menu is coded with a language such as JAVA SCRIPT, VBSCRIPT, DHTML, ASP and JSP. The on-line display method is divided into two or more layers and intended to supply customer-oriented interface. The data management is performed with MS SQL, JAVA language and XML.

#### INDUSTRIAL APPLICABILITY

5

10

15

20

25

30

The customized purchase payment solution according to the present invention for DIY credit card and DIY gift certificate causes economy recovery owing to economy synergy caused by the indirect effect of usage increase causing, transparency of economy due to cost reduction thanks to issuing and managing a bill and balance of paying tax owing to cultivation of taxation standard. Efficiency of taxation and tax management enhanced and stable price management due classification function and other indirect employment effects is expected. The Central bank minimizes the manpower loss and the time loss due to the management and transportation of The and coins. present invention lowers manufacture cost due to reduction of using cash. The bank increase income owing to saving labor cost due to cash calculation, input/output management reduction and enhances strategic positioning in new market trend. The present invention makes cash users to be credit card user by enhanced customer friendship. The user can resolve inconvenience of having cash and coin and it is convenient for the user to use the credit card in both general commercial transaction market and online market. The user is connected to a royalty program, and has various privileges according to usage record. user can has creative culture contents to form eternal and permanent community media since storing and managing DIY gift certificate after using it.

Culture exchange tickets and book exchange tickets enhance spending cultural goods and contribute to the culture industry revival because of advertising.

While the present invention has been described and illustrated herein with reference to the preferred embodiments thereof, it will be apparent to those skilled in the art that various modifications and variations can be made therein without departing from the spirit and scope of the invention. Thus, it is intended that the present invention covers the modifications and variations of this invention that come within the scope of the appended claims and their equivalents.

5

#### CLAIMS:

5

1. A method of applying for various gift certificates enabling design-editing on Internet after connecting to a server using a terminal connected to Internet, the method comprising the steps of:

- (a) if a user connects to the server through the Internet at the terminal and logs in, transferring homepage data to the terminal at a web server by using an operating system;
- 10 (b) if information request data for purchasing a gift certificate are inputted to the server from the terminal on which the homepage is displayed, executing a CGI program by the web server in the server and transferring kind and price information of the gift certificate to the terminal;
- 15 (c) if data of a gift certificate choice and a gift certificate design editing request are inputted to the server from the terminal that received information of a gift certificate, transferring a stored background image and a character to the terminal from a corresponding user space 20 allocated to database by using the operating system;
  - (d) storing an edited image made of a background, a character image and a text on the database under the control of the CGI program in response of request for editing a background image and a character from terminal, transferring the edited image to the terminal through the web server, and transferring a homepage for payment to the terminal; and
  - (e) transferring a window for a corresponding payment to the terminal in response of payment request for the image and a certificate decided to purchase from the terminal.

2. The method of claim 1, wherein in the step (d), a gift editing image is made by the steps of:

- (d-1) selecting one of various background images on the homepage provided from the web server of the server;
- (d-2) selecting a character image and synthesizing it
  with the selected background by a drag-and-drop manner;
- (d-3) complete an image by using image editing function including erase, brush and safe functions; and
  - (d-4) inputting text.

10

15

20

5

- 3. The method of claim 1, wherein in the step (e) comprises the steps of:
- (e-1) when purchase payment dialog room service for purchasing a gift certificate is selected at the terminal, displaying a dialog room window on the terminal and the other terminals participating in a dialog; and
- (e-2) providing a credit card payment window depending on result of participators' dialog in the purchase payment dialog room so that divisional payment is possible according to each of the participator for the purchasing the gift certificate.
- 4. The method of claim 3, wherein for the divisional payment, any one of equal division according to participators or unequal division is selected.

- 5. A method of applying for various credit cards enabling design-editing on Internet after connecting to a server using a terminal connected to Internet, the method comprising the steps of:
- 30 (a) if a user connects to the server through the Internet

at the terminal and logs in, transferring homepage data to the terminal at a web server by using an operating system;

(b) if request data for applying for a credit card and editing a credit card design are inputted to the server from the terminal, executing a CGI program unit by the web server in the server and transferring an information input window and a credit card design edit window to the terminal;

5

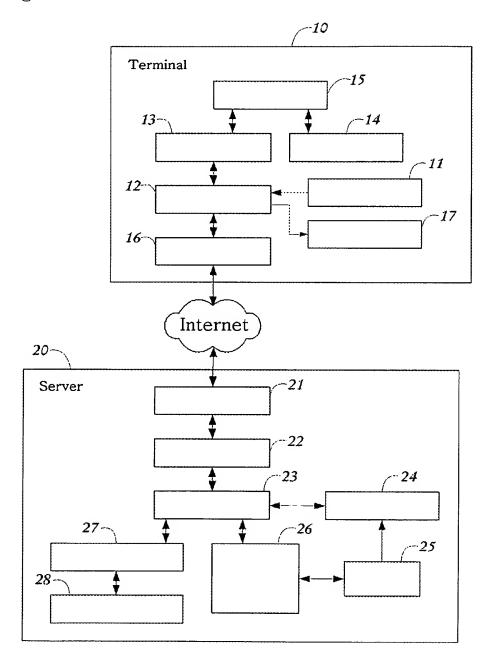
10

15

- (c) if credit card design edit request data inputted from the terminal are inputted, transferring a stored background image and a character to the terminal from a corresponding user space allocated to database by using the operating system in a server; and
- (d) storing an edited image made of a background and a character image on the database under the control of the CGI program unit in response of request for editing a background image and a character from terminal, transferring the edited image to the terminal through the web server, and transferring a homepage for payment to the terminal.
- 20 6. The method of claim 5, wherein in the step (d), a credit card editing image is made by the steps of:
  - (d-1) selecting one of various background images on the homepage provided from the web server of the server;
  - (d-2) selecting a character image and synthesizing it
    with the selected background by a drag-and-drop manner; and
    - (d-3) completing an image by using image editing function including erase, brush and safe functions.

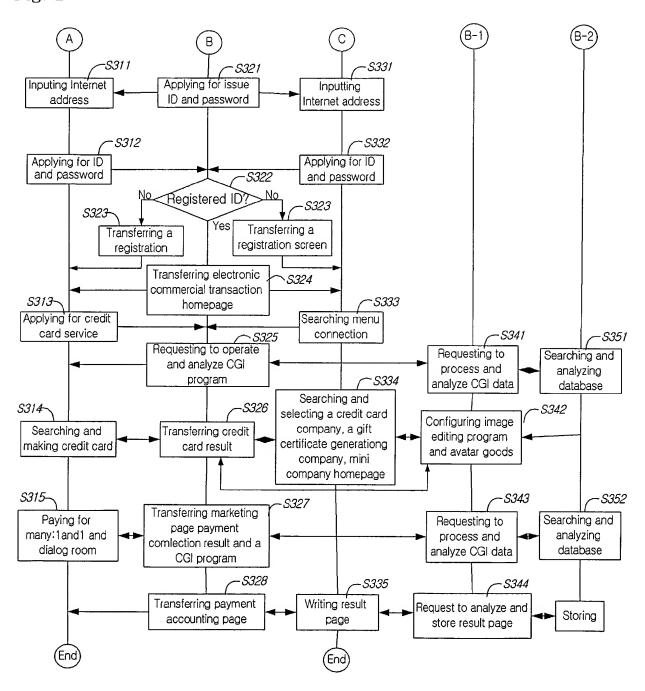
1/4

Fig. 1



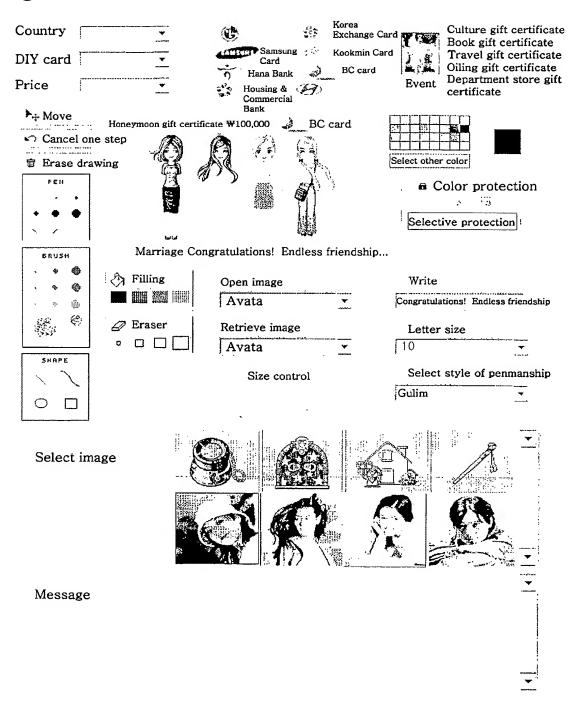
2/4

Fig. 2



3/4

Fig. 3



4/4

Fig. 4

#### Payment approval chatting room

Classification of chatting rooms	Secret chatting room	<b>—</b>	O Disclosure O Non-disclosure	
Chatting room title	Yeonghee marriage congratulations!	*	Password Free tour fur	nction
Message of chief of chatting room	Discussion on money for congratulations	r	Hide room ti	
Number of participants	4	<u>~</u>		
Sorting av	atas			

Enter purchase approval chatting room

Approval paymen	equalization approval -
-----------------	-------------------------

Honeymoon culture gift certificate \\ \W100,000, Avata gift \(\pi\_3,000\), Packing cost \(\pi\_20,000\), Delivery cost ₩1,000

Total ₩106,000

1/4 equalization approval ₩26,500

zation approval <del>W</del> 26,500				Confirmation		
Avata	Credit No.	Effect	ive period	of Installment classification Co		Confirmation
A	······································		•	Y	<u> </u>	W.
F1 [	a p A T P A y B p B B B B B B B B B B B B B B B B B		<u>*</u>	<u> </u>	*	U
1	· · · · · · · · · · · · · · · · · · ·		<u>•</u> [	<u> </u>	▼	
A			<u> </u>	<u> </u>	<u>*</u>	过

01010101.... Input window of chatting User of standby room

Whisper

Go out of purchase approval chatting room

#### INTERNATIONAL SEARCH REPORT

nternational application No. PCT/KR03/00678

### CLASSIFICATION OF SUBJECT MATTER IPC7 G06F 17/60 According to International Patent Classification (IPC) or to both national classification and IPC FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC7 G06F 17/60

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korea patents and applications for inventions since 1975

Electronic data base consulted during the intertnational search (name of data base and, where practicable, search terms used)

http://www.kipo.go.kr(domestic search system in the korean intellectual property office)

#### C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	KR 2000-6711(ITICKET corp.) 07 Feb. 2000 see the whole document	1-6
Y	KR 2000-63726(Kim, kwang-moon) 06 Nov. 2000 see the whole document	1-6
Α	KR 2000-6883(Suhn, seung-hyun) 07 Feb. 2000 see page 1-3	1-6
Α	KR 2001-747(CRM society corp.) 05 Jan. 2001 see the whole document	1-6

Further documents are listed in the continuation of Box C.	See patent family annex.
* Special categories of cited documents:  "A" document defining the general state of the art which is not considered to be of particular relevance  "E" earlier application or patent but published on or after the international filing date  "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)  "O" document referring to an oral disclosure, use, exhibition or other means  "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art  "&" document member of the same patent family
Date of the actual completion of the international search	Date of mailing of the international search report
30 JUNE 2003 (30.06.2003)	30 JUNE 2003 (30.06.2003)
Name and mailing address of the ISA/KR	Authorized officer
Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea	LIM, Young Heui
Facsimile No. 82-42-472-7140	Telephone No. 82-42-481-5779